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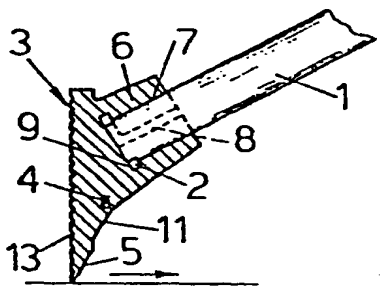
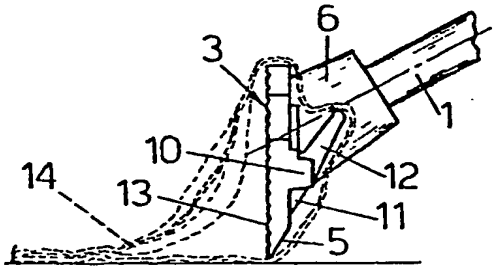
(54) Implement for washing the floor and for picking up water therefrom.

(57) Implement for washing the floor and wiping off water therefrom or similar surfaces, comprising a handle (1) and a body (3) with a pentagonal basis (13) having substantially trangular cross-sections of a short height and forming a front edge (5) with a fine blade which is connected to a back rib portion (10) of greater thickness which centrally projects upwardly and backwardly with a tubular projection (6) including the cylindrical seat (7) for gripping a rigid handle (1) formed with at least one section the body (3) being made of an elastomeric or plastic, slightly elastic material and incorporating reinforcement means, at least two teeth or fines (12) for the locking of the floor-cloth (14) being provided at the sides of the coupling seat (6) of the handle (1).





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Implement for washing the floor and for picking up water therefrom.

The present invention relates to an implement for washing the floor, which, according to a first utilization mode and along with a floor-cloth, serves to wash the floor and according to a second utilization mode, serves to wipe off the water which has been spilled on the floor or which can arrive thereon through windows or window-doors of balconies or due to other different reasons.

For cleaning works big brushes of wood or of plastic are commonly used, the first ones having broomcorn bristles and the second ones having a plurality of fine plastic teeth.

The first ones have the drawback of being heavy and of great size so that they cannot pass under the furniture which is easily damaged in case of collision.

Furthermore, they enable the washing of the floor only with the help of a wet floor-cloth.

The big brushes of plastic are lighter but less efficient and have a shorter useful life as well as sizes substantially equal to those of the wood brushes so that they suffer the same drawbacks as them.

Furthermore, the grip of the pastic teeth on the floor-cloth is much worse than that exerted by the broomcorn

bristles so that the operation is less efficient.

Other implements with metallic pincers have been provided, which clamp the floor-cloth by means of two metallic rod grip members. This type of implements,however, are heavy, expensive and have a very reduced working area on the floor so that a brief strip of cloth only works on the floor when using this type of implements. Furthermore, with this type of implements, much time is required for opening and clamping the pincers grip members, for taking off the floor-cloth and for the rinse thereof.

The implement of the present invention eliminates the drawbacks of the known implements designed to the same purposes and provides for a large working area on the floor.

The implement is provided with a grip handle which is removably introduced at one end in a coupling seat formed in a shaped body having substantially triangular cross-sections and provided with a front blade edge; this body is made of an elastomer or an elastically deformable plastic material, but it is provided at its central portion with an internal metallic reinforcement so that the main portion of the body is rigid, but the front blade edge thereof is elastically deformable and, according to the second above mentioned utilization mode, can slide on and wipe the floor by pression in order to remove the water thereform, whilst leaving practically dry surface after its passing.

The plane basis surface of the implement body is rough so that this roughness, in combination with two teeth or fins projecting from the sides of the handle, provides for firmly keeping the floor-cloth, while at the

centre of the upper portion of the implement body a rugged sleeve projection is provided in which one end of a rod forming the grip handle can be inserted. To this purpose this projection includes a cylindrical cavity shaped so as to form the seat for fitting coupling means of the handle, that can be thus easily removed and fitted so as to reduce at a minimum the overall dimensions of the implement.

The dimensions of the implement can be varied according to the destination thereof. In the implements for domestic use, they can be less than those of the implement for the cleaning of schools, hospital and public places. The implement is very fine so as to be easily passed under the furniture. It is made of an elastic material so as not to cause any damage even if it is handled without care. Furthermore, when the implement is used in the second utilization mode, it can clean with the help of a floor-cloth also the very narrow areas and those near the walls, while, when it is used without floor-cloth, it permits to quickly wipe away the water on the floor towards a collecting point, leaving practically dry surfaces after its passing.

A very important adavantage of the implement is due to the fact that its cleaning is easy and complete and can be carried out by a simple washing only, since it is not provided with internal or hollow portions where the dirt can hide.

These and other features and advantages of the present invention will appear more apparently in the following description of an embodiment thereof with reference to the annexed drawings, wherein:

Fig. 1 is a plan view of the implement; Fig. 2 is a front view of the implement; Figs. 4 and 5 are cross-sections taken along the lines A-A, B-B and C-C, respectively, of Fig. 1 and 2; Fig. 6 shows the cross-section X-X of the implement along the axis of the handle when the implement is used to wipe off the water; and Fig. 7 is a side view of the implement in the second position with the floor-cloth applied thereon.

The implement comprises a handle 1 (Figs. 6 and 7) which can be provided with two diametrally opposed teeth 2 projecting radially from the end 1a thereof and adapted to be coupled to the implement body which generally is marked with 3. These teeth 2 provide for a bayonet joint with this body 3 so as to render demountable the implement.

Obviously the handle 1 can also be arranged for a screw or pression connection to the implement 3.

Furthermore the handle 1 could also be formed by a plurality of sections which can be releasably coupled to each other. The body 3 is made of an elastomeric or plastic material such as vulcanized rubber or similar and includes an internal stiffening reinforcement 4.

The body 3 has a plan form of a very flattened pentagon and is provided at the front portion with a blade edge 5 which is rearwardly connected to a portion having a substantially triangular cross-section which is higher and stronger and is internally stiffened by the abovementioned reinforcement 4.

At the upper central portion the body 3 is provided with a tabular projection 6 which includes an internal cylindrical cavity 7 shaped so as to allow the insertion and

the preferably releasable locking of the end 1a of the handle 1 which can be made of wood, plastic material or metal and possibly composed of single sections in order to be disassemblable.

To this purpose, in case of a bayonet joint the internal cavity 7 of the projection 6 is provided with two longitudinal slots 8 which are able to receive the teeth 2 and are connected to an annular slot 9.

Therefore the handle 1 has to be inserted so that the teeth 2 first are aligned with the slots 8 and then penetrate therein until the end 1a comes to the limit stop and the teeth 2 come to the slot 9. By rotating the handle 1 the teeth 2 are restrained in this slot 9 where they are locked, due to the fact that the handle 1 is dimensioned so as to be frictionally introduced in the seat 7 causing a slight deformation of the elastic material of which the body 3 of the implement is made.

The body 3 is longitudinally formed with a rib 10 forwardly projecting with reinforcement memebers 11 and from which at least one tooth 12 projects at both sides of the projection 6. These teeth are provided for gripping the floor-cloth 14 (Fig. 6) which can be used along with this implement. The body 3 has a large basis surface 13 provided with knurlings, ribs or hold members to grip the body of the floor-cloth.

The implement provides two utilization modes as illustrated in the Figs. 6 and 7.

A floor-cloth can be wound around the implement 3 (Fig. 7) by winding one of the end portions thereof around the projection 6 and locking it on the teeth 2 so that the floor-cloth 14 is astride of the implement. In this position the implement is used for washing the floor like

a conventional brush but with the advantage of being very short so that it can easily be passed under the furniture, considering that the axis of the handle is inclined in respect of the surface plane 13. Furthermore the front blade edge 5 is considerably elastic and flexible so that in case of collision with the furniture it cannot cause any damage. As already mentioned, the floor-cloth 14 is wound around the implement 3 so that on lifting the latter, also the floor-cloth is raised. Therefore, passing from a working area to another one far enough, the floor-cloth does not need to be touched, but it is sufficient only to maintain the implement raised from the floor. In the position illustrated in Fig. 6, which is provoded to convey the water towards a collecting area, the implement without floor-cloth rests on the floor through the blade edge 5 and acts like an elastic blade which wipes away the water from the floor exerting a pression thereon so that the floor is practically wiped by the passing of the implement. In this position the implement can also be used for wiping away rain drops from each smooth surface. It is apparent that in order to increase the endurance of the implement and to simplify the construction thereof a metallic reinforcement including the coupling seat could be provided within the projection 6, this reinforcement being embedded in the body 3 during the molding.

Claims:

1. Implement for washing the floor and for wiping off water thereform or similar surfaces comprising a handle and a body, characterized by the fact that the body (3) includes a basis (13) of pentagonal form and a short height and has a substantially triangular cross-section forming a front edge (5) with a fine blade, which is rearwardly connected to a portion of greater thickness forming a longitudinal rib (10), which is centrally widened and projects upwardly and backwardly with a tubular projection (6) including a cylindrical seat (7) for the coupling of the handle (1) made of a rigid material and formed by at least one section, said body (3) being made of an elastomeric or plastic, slightly elastic material and incorporating reinforcement means (4), at least two teeth or fins (2) for the loc-ing of the floor-cloth being provided at the sides of the coupling seat (6) of the handle (1).

2. Implement according to the claim 1, wherein the end (1a) of the handle (1) comprises a pair of diametrally projecting radial teeth (2), while in the internal wall of the cavity (7) of the tubular projection (6) diametrally opposed slots (8) are provided, the sections of which are complementary to those of said teeth (2), these slots being connected to an annualr slot (9) for the coupling of the teeth (2).

FIG.1

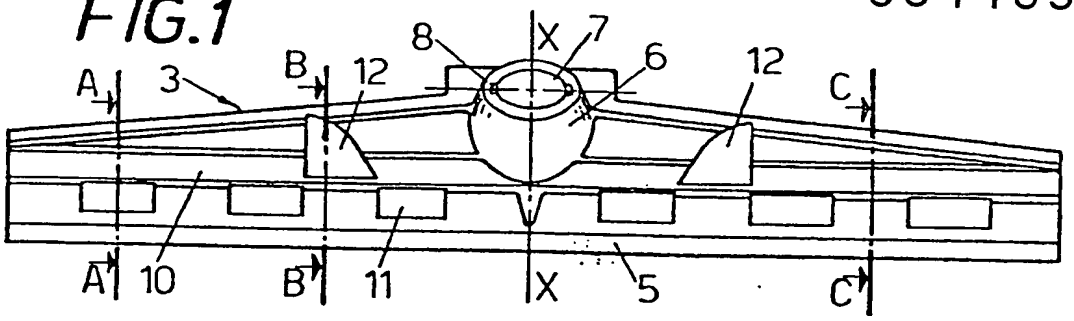


FIG.2

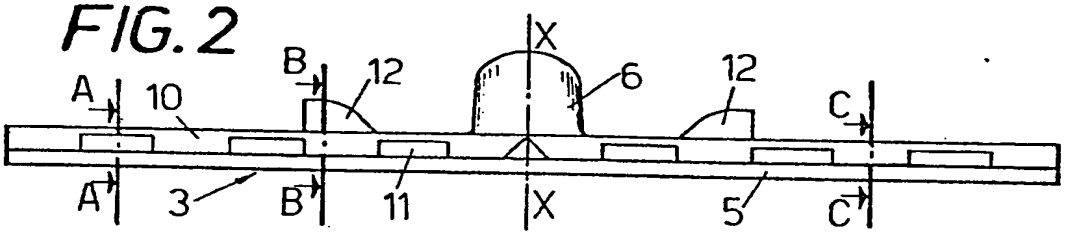


FIG.3

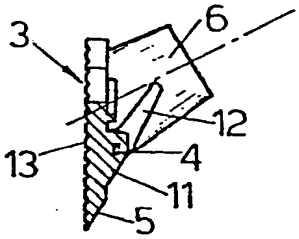


FIG.4

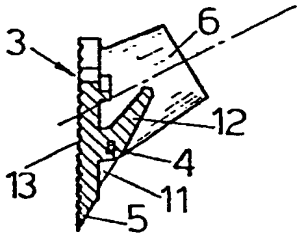
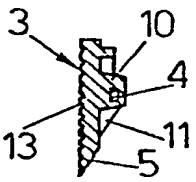


FIG.5



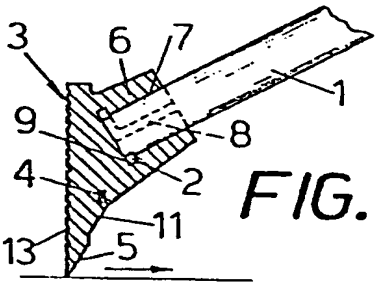
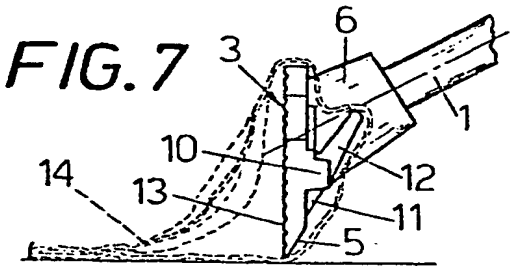


FIG.6

FIG.7



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EUROPEAN SEARCH REPORT

0011055
Application number

EP 79 830 041.4

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
	DE - C - 426 506 (W. BRANDT) * fig. 1 *	1
	DE - U - 7 105 390 (L. FRIEDBERGER) * fig. 1c *	1
	DE - U - 7 319 209 (R. DIETSCHE KG) * fig. *	1
	DE - U - 1 734 326 (N. STARK) * fig. 1 to 3 *	1
	US - A - 2 586 472 (S. McKOWN) * fig. 4 *	1
	DE - B2 - 2 311 463 (H. GERDES) * fig. 2, 3 *	2
	CH - A - 63 532 (G. BENZ-SCHÖNEN-BERGER et al.) * fig. 1, 2 *	2
	US - A - 2 527 256 (E.R. JACKSON) * fig. 1 *	2

CLASSIFICATION OF THE APPLICATION (Int. Cl.³)

A 47 L 13/10
A 47 L 13/42
A 47 L 13/44

TECHNICAL FIELDS SEARCHED (Int.Cl.³)

A 47 L 13/00

CATEGORY OF CITED DOCUMENTS

X: particularly relevant
A: technological background
O: non-written disclosure
P: intermediate document
T: theory or principle underlying the invention
E: conflicting application
D: document cited in the application
L: citation for other reasons

&: member of the same patent family, corresponding document

X The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Berlin	22-01-1980	KLITSCH

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